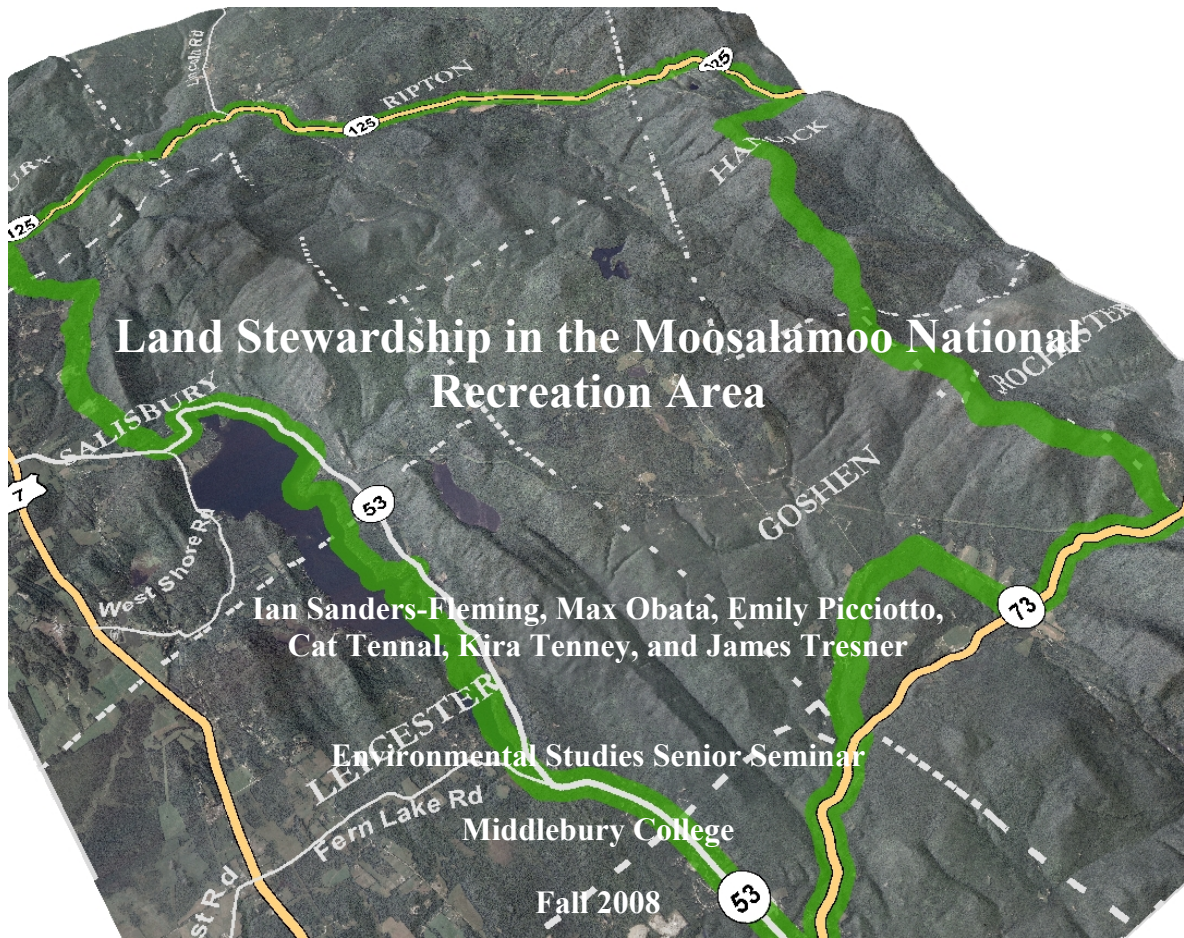




Land Stewardship in the Moosalamoo National Recreation Area

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Introduction

“A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land. Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity...”

- Aldo Leopold (*Sand County Almanac*)

What is Land Stewardship?

Land stewardship is the practice of carefully managing land usage to ensure natural systems are maintained or enhanced for future generations. Land stewardship involves caring for the system as a whole, understanding the fundamental roles and values of natural systems, building up biological fertility in the soil, and incorporating an understanding of ecological cycles (water, energy, nutrients) and how land-use practices can either benefit or harm these cycles. Also essential to land stewardship efforts is resource conservation—maximizing efficiency and reducing the one-time consumption of renewable and non-renewable resources as well as striving for long-term optimization versus short-term maximization of production. Land stewardship works to maintain and enhance stability in nature by encouraging natural biological diversity and complexity; maintaining natural areas and functions on the land (i.e. wildlife habitat conservation). Through land stewardship, cultural values and ethics are developed that recognize the importance of caring for the health of the land, keeping resources within communities, and promoting long-term economic stability through responsible land use (landstewardship.org).

The New Stewardship Model: Community Collaboration

Just as a broad spectrum of opinions will be present on the larger scale—city, state, country, globe—the community serves as a microcosm of this same reality. Much of the utility of conservation work on a smaller scale, such as the community, is that it allows for conflict to be resolved and compromise to be reached on a smaller, more manageable level. Such models of resolution and compromise can then be applied in other areas or on larger scales.

Community-based conservation keeps interest local, keeps people on the land, facilitates tackling conservation on a smaller scale, and engages people in their communities, as well as raising awareness of government processes.

The Rationale: Community Collaboration and Stewardship Contracting

The US Forest Service defines stewardship contracting as “natural resource management practices seeking to promote a closer working relationship with local communities in a broad range of activities that improve land conditions. Stewardship contracting is a means for federal agencies to contribute to the development of sustainable rural communities, restore and maintain healthy forest ecosystems, and provide a continuing source of local income and employment” (<http://www.fs.fed.us/forestmanagement/projects/stewardship/index.shtml>).

The local nature of stewardship contracting, which focuses on keeping resources within the community as well as giving back to the natural areas that provide valuable resources, fits well into a community-based conservation vision such as that which is

outlined by the author Eric Freyfogle in *Why Conservation is Failing and How it Can Regain Ground*:

“The market deals with people as individual consumers and producers, not as communal members,” Freyfogle writes. “...The market is efficient only in supplying people with goods and services that they can enjoy individually, with little or no sharing. Most conservation goods (migratory birds and healthy rivers, for instance) are not of this type” (37).

Freyfogle writes in great depth of the importance of developing a sense of connection to the earth—the kind of connection that can only exist when individuals think of themselves as a cog in the community wheel. All members of the community are necessary in order for ideas and actions to move forward. The communal sentiment Freyfogle endorses could be effectively supported by an official entity that would give credibility and form to the perhaps overly vague notion of community collaboration, and stewardship contracting could make this possible to a great extent.

The Moosalamoo National Recreation Area

The Moosalamoo National Recreation Area (MNRA) is a 20,000 acre region located in the heart of the Green Mountains of Vermont, bordered by the Greens to the east, Lake Dunmore to the west, and Routes 125 and 73 to the north and south respectively (see Map 1). The Moosalamoo Association, in partnership with the US Forest Service and 30-40 member associations ranging from innkeepers, the Green Mountain Club, Vermont Bicycle Touring, the Vermont Association of Snow Travelers,

and other user groups in the region, takes a lead role in the management of the MNRA.

Their mission is to:

- Collaborate with public entities to plan, manage, and provide stewardship for wildlife habitat conservation and quality public recreation opportunities and facilities.
- Promote responsible recreation participation and environmental awareness through interpretation, education and resource monitoring.
- Demonstrate the unique capabilities of public and private partners working together.
- Strengthen partnerships at the local level in cooperative projects such as trail construction and maintenance, wildlife habitat improvement, or visual enhancement of roadsides (Moosalamoo.org).

Our Project

Goals

Our primary goals for this project were:

- To propose stewardship projects for the MNRA inspired by research of both existing projects elsewhere and thoughts and ideas of our group and community stakeholders. The primary focus was to formulate projects that hold the potential to increase the engagement of the surrounding communities in the MNRA.
- To survey loggers who attended the Stewardship Contracting Workshop at Blueberry Hill Inn on October 21, 2008. The Stewardship Contracting Workshop was a meeting held by the US Forest Service to introduce the concept and “how

to” of stewardship contracts to small-scale loggers, large-scale loggers, mill owners, and educators.

- To survey active members of the Moosalamoo area community in order to develop a steering committee of community members who would help to implement land stewardship projects within the Moosalamoo National Recreation Area.
- To draft proposals of potential stewardship projects for the community to engage in.

Ultimately, our goals were centered around the primary focus of increasing community involvement and land stewardship within the MNRA through both formal (stewardship contracting) and informal mechanisms.

What’s to Come in the Remainder of the Report:

We begin by establishing a background to land stewardship projects as potential models for projects within the MNRA. We discuss Forest Service Stewardship Contracting, Vermont Family Forests, and the Discovery Trail in New Hampshire. These all contain useful components, structures, and opportunities for stewardship projects within the MNRA.

We then discuss the surveying method that we used in conjunction with the Introduction to Stewardship Contracting Workshop led by the US Forest Service in October of 2008, and the results of the surveys.

After the Background section, we move on to discuss our stewardship recommendations for the MNRA. First, we recommend the establishment of The

Moosalamoo Steering Committee, which would be structured around a core group of highly invested and motivated individuals, all residing around or working within the MNRA, who represent a wide range of professional expertise and local knowledge. In order to initiate the establishment of this committee, surveys for active members of the MNRA community were mailed to individuals based on their current, and estimated continued involvement in the area.

We next discuss our proposals of possible land stewardship projects to offer the steering committee. These proposals include a Local Education Program, a Work-Party Weekend Program, a Maple Sugaring Operation, a Community Firewood Program, Toy Making and Furniture, an Adopt-a-Trail Program, and an Information Center. The extent of the projects and the direction which they will take would be for the steering committee to decide. At its core, the steering committee should be committed to rallying the greater community to carry out land stewardship projects.

The overarching goal of this project is to engage in land stewardship projects. However, a major factor in the success of these projects is community involvement. If done well, land stewardship most benefits the local community because of the resulting increase in human capital and ecosystem services. Thus, a high level of community involvement in land stewardship projects maximizes the benefits the community as a whole can reap.

Background

US Forest Service Stewardship Contracting

In 2003, the US government authorized the US Forest Service and the Bureau of Land Management to implement Stewardship End Result Contracting, most commonly referred to simply as stewardship contracting. In a basic outline of stewardship contracting, the Forest Service describes:

The primary goal of stewardship contracting is to assist in enhancing and restoring landscapes wherever such projects are undertaken. The focus is on what we leave behind—an improved land health. Stewardship contracting is intended to achieve key land-management goals that focus on the improvement, maintenance, or restoration of forest or rangeland health through an open, collaborative process. The legislation also requires that projects meet local and rural community needs.

(US Forest Service Stewardship Contracting: Q's and A's)

For example, stewardship contracting allows the Forest Service to consider “best value,” which takes into account a logger’s past record in terms of end results of logged sites and quality of service project work when considering a bid on timber, instead of just allotting the timber to the highest bidder. It can also be an exchange of goods and services, such as completing stream restoration and watershed repair, in exchange for timber.

The stewardship contracting model is built off of the ideal inclusion of all interested parties, with the ultimate goal of producing the best outcome. The contract is a compromise between parties, and all parties are meant to be informed and involved in the process of creating the contract. Although this extends the initial time it takes to form the

contract, it ideally makes the contract's projects run much more smoothly because all stakeholder concerns are addressed up front.

Examples of Stewardship Contracting

Stewardship contracting has been used by the US Forest Service (USFS) and Bureau of Land Management (BLM) in some form since pilot projects began in 1999. Beginning with a new public law in 2003, both of these agencies were granted a ten-year window in which to enter into stewardship contracts with contractors. The recent push in Vermont for the increased visibility and use of stewardship contracts comes from the success of past programs, the impending deadline to enter into new contracts and the move within the US Forest Service to a stewardship contracting model as the primary means of conducting timber sales. There are many encouraging examples nationally and here in Vermont, and we will highlight some of these here (United States Forest Service 2008).

One successful stewardship contract was The Hungry Horse/West Glacier Fuels Reduction Stewardship Contract in the Flathead National Forest located in northwest Montana. While wildfires are not as common or problematic in the east, the stewardship model of this example is useful to examine.

The desire for the contract stemmed from local residents' interest to put the same fire defense measures that are often located on the edge of private forest land in place along federally owned forest land bordering private property. The contract that was entered into used both thinning and prescribed burning to treat roughly 200 acres of forested lands within 500 feet of private lands.

The project utilized the “goods for services, retained receipts, best value contracting, and designation by description stewardship authorities” (United States Forest Service 2008). Exchanging goods for services is the basic fundamental of stewardship contracting—service work in exchange for forest products. Retained receipts are the revenues remaining from the sale of timber through stewardship contracts that can be used to develop other contracts or undertake other service projects. Designation by description is a new tree designation system for forest management where trees available for cutting are designated by species, diameter, and stocking criteria. This system prevents people from having to mark every tree and is hoped to be more cost-effective.

This project enabled the implementation of treatments on federal lands that are common on adjacent private lands. It also allowed the government to demonstrate fuel reduction strategies for landowners as well as stewardship contracting in a highly visible area. It also successfully employed a variety of different contract types and specifications to achieve its goals. The US Forest Service also saw first-hand the benefits of engaging in one-on-one discussion with local residents about their concerns, as well as the value of bringing their ideas and plans to the community on the community’s terms and the enthusiasm that accompanies this approach. Instead of holding a meeting themselves, the US Forest Service engaged the community at a community-sponsored meeting.

The US Forest Service also learned many lessons from this project. While community involvement is central to stewardship contracts, this project showed just how lengthy that process can be. It is clear that the collaborative process between the US Forest Service and the community should be started as soon as possible. It was also clear that more education about stewardship contracting is needed. In Vermont, the latter need

is already being addressed in powerful ways in sessions like the Stewardship Contracting Workshop that was offered in late October 2008 at Blueberry Hill Inn. Lastly, the need for clarity in describing the steps that are needed to develop a stewardship contract was exposed in this project.

While this example highlights the challenges faced by the US Forest Service, it also highlights that the benefits clearly outweigh the challenges in this new brand of land stewardship that centers on reaching out to neighbors and other concerned and knowledgeable parties.

While our group's project specifically looks at potential projects in the Moosalamoo National Recreation Area here in Addison County, many other stewardship contracts have been explored and used around the state of Vermont. One project that is in the development stages is the South Road Stewardship Project.

This contract was initiated when the town of Peru became interested in US Forest Service activities along South Road, and the two entities agreed to work together to move forward with a plan that would address concerns from the town while employing the US Forest Service's guidance. The town of Peru was interested in a myriad of issues relating to activities along South Road, including "an unsafe parking situation along South Road and the resulting potential for sedimentation of an existing wetland... improving wildlife habitat, [and] protection of nearby historic sites." (United States Forest Service 2008).

The town and the US Forest Service decided to move forward with a "sole source" stewardship contract between the two entities which gives less than full and open competition, but enables the US Forest Service to work directly with the town and utilize the skills of the local workforce familiar with the area. This type of contract will allow

the town to sub-contract out the different aspects of the service to individuals and companies who have worked with the town before and are familiar with the project area, while keeping knowledgeable locals at the forefront of the decision-making process.

The revenue for the project was generated from the timber cut and sold in the area. Roughly 295 thousand board feet were available to the logger, valued at more than \$13,000. The value of this wood was used to build a vehicle pull-off for erosion control, release and tend to six acres of apple trees, and construct a fire line/break roughly 2,600 feet long with a three-foot width. The contract was prioritized and divided into mandatory and optional service work items that would be completed dependent on the timber value. One such optional item was the construction of roughly 2,600 feet of fencing to prevent deer from browsing on oak seedlings.

This example contract is valuable as a case study not just because it is a Vermont-based contract, but also because of its scale. The amount of timber involved and the size/scope of the service work paired with the timber sale are comparable to a contract that could be undertaken in Moosalamoo. Beyond that, vehicle pull-off construction and apple tree releases are both things that could be included in a stewardship contract for Moosalamoo.

Vermont Family Forests

While stewardship contracting provides a valuable model for more formal land stewardship projects, Vermont Family Forests provides a valuable model for more informal land stewardship projects outside of the government's purview. Vermont Family Forests is a community-based land stewardship group located in the heart of the

Green Mountain National Forest. In 1995, the Addison County Forester David Brynn and the Lewis Creek Association began offering workshops about forest stewardship to a group of interested individuals. This group of interested individuals grew and established a better organization, being joined by the Otter Creek Audubon Society and the Watershed Center in 1996. In 1997, the group, now known as Vermont Family Forests, became an official non-profit organization (Brynn 2001).

The mission statement of Vermont Family Forests is “to conserve the health of the forest community, and when appropriate, to promote the careful cultivation of local family-owned forests for community benefits” (Vermont Family Forests 2005). Clearly stated, Vermont Family Forests provides a means for community members to collectively own forested areas (i.e., privatize land ownership), and, as a group, decide how to manage, protect, and conserve the land. Measures to achieve these goals include sustainable timber harvesting for firewood, as well as the maintenance of other ecosystem services, such as wildlife diversity and watershed health. A recent project example takes timber harvested from these community forests and invests it into hardwood flooring under the Family Forests® Brand.

Another example of Vermont Family Forests’ collaborative stewardship model is the Little Hogback Community Forest (LHCF), LLC. The Little Hogback Community Forest was established in 2005 as Vermont Family Forests’ first community owned forest (Brighton 2008). The 115-acre forest is located in Monkton, VT, and is owned by a Limited Liability Corporation (LLC). In an effort to make the land more affordable to families, Vermont Family Forests purchased the land from the Vermont Land Trust, who holds the conservation easement. VFF, holding an Affordability Covenant, which again

lowered the price of the land, was then able to sell the land to the LLC (16 community shareholders) at a significantly reduced cost.

In the example of Little Hogback, VFF fleshed out the first two years of the forest's management plan, which they presented to the shareholders prior to selling the land. This procedure allowed the experts to establish a basis of land management that the LLC could learn from and maintain for the duration of their ownership (Lyman 2008). The plan defined ways in which the land could be used, such as for recreation, hunting, and timber harvesting, preventing a future clash between the shareholders over land use practices.

Besides goods and services, Vermont Family Forests also allows groups to conduct research projects on its lands. Such projects include the Colby Hill Ecological Project (CHEP), located in Lincoln, VT, on the Colby Hill Town Forest. This community forest is owned by members of VFF in the Lincoln community. The CHEP is comprised of scientists who research forest health based on species diversity. The studies conducted on private lands owned by members of Vermont Family Forests in Lincoln will help to improve conservation and management practices of other intact forests in Vermont.

Vermont Family Forests provides a clear example of a successful stewardship model. A central aspect to the work of Vermont Family Forests is a high level of community involvement, and, arguably, without community involvement, there would be no organization. By having community members buy into a forested area, they invest in it and consequently have increased incentive to manage the land well. The model is also very flexible in its application.

Because Vermont Family Forests sells land to a LLC, they do not play a significant role in the later management of the forest. However, this opens the doors for the LLC to engage in private or public stewardship projects on the land. The US Forest Service can approach LLCs with stewardship contracting proposals, and they can bid on proposals the way other parties do. The difference being that the LLC is a local, community organization, which often connotes a higher bid value from the perspective of the Forest Service.

Discovery Trail in New Hampshire

As many visitors to the White Mountain National Forest had never witnessed a logging operation, the US Forest Service suggested the establishment of a demonstration trail in a well-traveled area of the forest lands in the mid-1990s. The goal of the trail was to exemplify how a forest could be a “working forest”, serving both aesthetic and economic purposes. This Discovery Trail was to be located near a well-traveled road, the Kancamagus Highway in New Hampshire, allowing visitors to easily access the trail and the information it provided.

Although not beginning specifically a stewardship contract, the US Forest Service deemed stewardship contracting to be a useful means to establish the Discovery Trail in New Hampshire (USDA and DOI 2008). The trades of goods and services began when a construction company was hired to clear trees for the trail, and was able to sell the timber for its own profit. The US Forest Service also enlisted the assistance of interested citizens to provide and maintain the educational aspect of the Discovery Trail, such as by leading educational hikes on the trail for children. This group of individuals was integral

to the success of the project because they were the ones who would carry out longer-term tasks, such as maintenance of the trail, thereby ensuring its success over time.

This model is applicable to the Moosalamoo region due to the similarities in goals with the Discovery Trail. The Moosalamoo National Recreation Area has a single road that bisects it—Forest Road 32—that would be an appropriate location for the construction of a similar type of trail. Allowing visitors to the area to view successful and sustainable timber harvesting would promote a positive perspective on the practice. This could encourage individuals to engage in healthy land stewardship, either as a community or through the US Forest Service’s formal stewardship contracting process.

Surveys

Stewardship Contracting Workshop Attendee Survey

Loggers who attended the Stewardship Contracting Workshop led by the US Forest Service in October of 2008 were asked to complete phone surveys about their experience at the workshop and with stewardship contracting. We compiled and assessed responses to 9 questions addressing all areas of land stewardship, including stewardship within and outside of the US Forest Service (See Appendix 1). The results of the survey will be returned to the US Forest Service so they may be able to draft more beneficial stewardship contracts in the future.

We also interviewed several of the logging contractors, mill owners, and environmental associations that attended the workshop, and several of our group attended the workshop for further insight. While responses to our surveys were extensive and informative, the number of results was limited. We highly encourage more phone-surveying following meetings with interest groups as a way to gather feedback. The

majority of those we spoke to were small scale contractors who provided a diverse set of forestry services. These are the type of companies that would likely be hired for small timber operations and service jobs under stewardship contracts in the future. The variety of work that these contractors can do makes them invaluable resources to better the

Moosalamoo Recreation Area:

- Minimum Impact Logging
- Forestry
- Biomass Preservation- Mulching/chipping waste wood from timber projects
- Timber stand Improvement- Cleaning out tree stands
- Site Preparation- post logging, ensuring the health of the remaining stand
- Firewood harvesting
- Field reclamation
- Individual tree removal
- 25-30 acre selective cuts
- Releasing historic orchards

Many of these contractors are already active members of their community, working with their town forests, members of Vermont Family Forests, and working with the Patricia A. Hannaford Vocational Center in Middlebury. Many of the smaller contractors tell stories of doing extra work for no pay for customers who contracted a larger firm and were left with a huge mess in their forest. What most of these smaller contractors call for is a more established forester society that would control quality requirements in timber operations. None of these contractors have been part of

stewardship contracts before, yet many recognize the opportunities such contracts would provide, as calling for specialty site work and stand work requires a diversity of services.

The general opinion of the Stewardship Contracting Workshop was that it was useful and well run, yet the forum for constructive collaboration was missing. Some cited flaws in the presentation; others complained that opponents of the contracts prevented anyone from having constructive, respectful conversation. Clearly there were issues of trust and distance present in the workshop, yet our respondents expressed a great deal of interest in further collaboration on bettering the design of stewardship contracts so that they would appeal to more loggers. The presence of so many US Forest Service officials was well received by many loggers as a sign of the legitimacy of the contracting ideas. Many were simply excited to have a meeting where loggers, government groups, and NGOs could all meet and network. Increased communication was universally considered a positive thing.

Many of the contractors hope to take the ideas and benefits of stewardship contracting into their own communities. A steady enough supply of timber in their hometown could save the dwindling number of sawmills and help keep the forestry economy diverse and stable. It is a credit to the US Forest Service that stewardship contracts are working to keep a large range of forestry businesses alive, instead of favoring large-scale specialized companies. Some associations that replied to the survey looked forward to benefits from contracts going into solutions for species in need of protection and conserving local natural resources, particularly fish and wildlife populations. The majority of contractors were excited about the fact that contracts would

keep revenues within the community and the forest, benefiting many different local service jobs and encouraging forestry diversification.

For the contractors that provided stand services and non-harvesting work, stewardship contracts could create a much higher demand for their work. Releasing orchards, reclaiming fields, prepping stands, and cleaning timber sites are required in Moosalamoo and other areas, and stewardship contracts could provide the financial wherewithal to support this. Other contractors looked forward to lower bids that smaller contractors could afford. They hope stewardship contracts will take the monopoly on timber operations away from large timber corporations. Associations with conservation goals look to stewardship contracts to provide work for wildlife habitat improvement and active forest management.

Some major issues in the Stewardship Contracting Workshop's presentation made contractors apprehensive about the potential success of the contracts. One contractor, who had worked with the US Forest Service for years, recognized that since stewardship contracts had the right to require a bid deposit, many new companies with less revenue put away would have a harder time breaking into contracts. This would favor legacies with companies that had worked with the US Forest Service over time. There were also suggestions that the US Forest Service hold more workshops in order to smooth the transition for contractors to the new system, attract more bidders, and ensure that everyone understands the structure and requirements of the new contracts. A major request was a more steady and efficient provision of sales. This was particularly directed at the 3-month winter logging season, which makes it very difficult for logging businesses to survive the summer. Also, mills cannot practically stockpile a years' worth

of wood from one winter. If logging contractors do not find work during the summer, the diversity of bidders will quickly plummet. One contractor pointed out the obligation of loggers to diversify their services to better serve the contracts. “The Vermont way is to go out and do it. Diversification is key” (phone interview with logger). Respondents saw several things they considered to be the greatest strengths of stewardship contracting: community involvement, local benefit from revenues, and environmental improvements. Some of the greatest weaknesses were: time required to implement the new system, the issues of fairness, and the seasonal nature of projects.

Many small loggers were nervous that larger companies would prevent stewardship contracts. The interest must be in forest health, economics, and sustainability, not purely financial numbers. Some contractors see stewardship contracting as the only viable future direction for national forests in the face of environmental and economic challenges. Some look at the idea with great skepticism. Others see potential, if key changes are made. Continuous discussions need to occur between contractors, associations, and the US Forest Service if stewardship contracts are going to evolve into a successful system in Vermont.

Stewardship Recommendations for the Moosalamoo National Recreation Area

Moosalamoo Steering Committee

One of the main objectives of our project is the creation of a steering committee that will be in charge of shaping the future of the Moosalamoo Area. More specifically, this executive group will be made up of a dozen (or so) community members from a diversity of interest groups that will represent the needs of the area and its stakeholders.

Members will hopefully include, among others, local business owners and residents, government employees and educators. The only binding characteristic for the group's members is that they possess a sincere desire to promote the best interests of the MNRA and are willing to give their time and energy to proactively executing projects for the Area's benefit. This group will meet once or twice a month and discuss ways to set up and implement projects within the Moosalamoo Area. They will then be in charge of organizing the existing lists of community volunteers.

A member will be asked to serve on the Steering Committee for a period of two years, after which he/she can choose to stay on or can be replaced by another community member who is voted upon by the existing members. It is important to have a variety of backgrounds present in each committee, so that each term has a wide variety of experience, skills, and perspectives.

There are many examples of major recreation areas in the United States that have groups that collectively assist in making or informing decisions on public lands. The Friends of Yosemite, in particular, is a good model for a streamlined organization that has been the harbinger of real productivity and change in the Yosemite area. For instance, because of pressure from this group, the National Park Service was forced to comply with the existing environmental laws that govern the Yosemite Valley and the Merced River. It is exactly this type of strong conviction that is needed within the ranks of Moosalamoo volunteers (yosemitevalley.org 2008).

The National Wilderness Steering Committee is another group that has proven effective in addressing critical stewardship issues pertaining to a wilderness area. At its inception, four main committee members were chosen to organize a series of questions

concerning the cultural and natural resources in wilderness areas across the United States. This survey was then sent around the country to thirty members of the steering committee; each chosen based on their pronounced interest in wilderness areas. They were asked to make several key decisions for the direction of wilderness areas in the United States. Their recommendations were compiled at a steering committee meeting and final decisions were reached on many of the main stewardship issues facing the wilderness areas. For instance, one issue facing wilderness areas in the United States was the removal of historic structures and other cultural resources to protect wilderness values. The steering committee members voted to keep historic structures while placing a stop on the construction of modern structures in wilderness areas (National Wilderness Steering Committee 2002).

Our group has generated a list of several potential stewardship projects that would be beneficial to the MNRA, and are aimed at promoting and augmenting a sustainable community relationship. The steering committee will further serve as a ready network of community opinion access for the US Forest Service should they be interested in stewardship contracting within the area. These projects are each outlined more specifically below.

Another key problem with the existing infrastructure of the Moosalamoo Association is that there are currently no full time employees to help organize the direction of the Moosalamoo region. Along with the steering committee, we recommend a search for a qualified candidate to oversee the volunteer committee members and more effectively organize the business side of the Moosalamoo Association.

Local Education

One of the best ways to create community awareness and connection is through the engagement of the region's youth. Currently, eighty percent of the users of the MNRA are from out of state (Clark); unfortunately, many of the people who live within and around this remarkable recreation area do not use it. A project exposing local students to the area and its opportunities would be beneficial in both its means of progressing regional education and local pride and in its means of providing experiential environmental education. By engaging students in an outdoor setting, they will develop a better sense of connection to the land as their home, and a better understanding of their role within their environment.

Educational Moosalamoo "Toolboxes" for Regional Elementary Schools

Creating and distributing "toolboxes," with tangibles and handouts pertinent to the MNRA and natural and environmental education is a potential means to spark interest and connection to the MNRA and the importance of land stewardship. These toolboxes could include maps of the area, orienteering games, and moose-shaped cookies. Class ideas could be given to teachers to incorporate stewardship and environmental education into their coursework. These toolboxes would have to be adjusted for age, and perhaps would be done away with in high school courses; however, the MNRA could still be proposed to high school environmental studies teachers as a working model of land stewardship.

Outdoor Education and Appreciation After School Program

The development of an after-school program centered on outdoor education and appreciation within the Moosalamoo region holds enormous potential. The program could start with weekly after-school adventures, such as a hike, apple picking, or snowshoeing. These “adventures” would provide an introduction to local residents of the opportunities that are right out their back door, and would spark interest in alternatives to just “hanging out.” Furthermore they would be educational, as participants could learn about soil erosion and the importance of a healthy watershed during a trail maintenance work day. Although not all participants might immediately connect with the outdoors, the program could be a life changing experience for those that do.

This program could take various directions and has great potential to be expanded and built upon once established. Eventually, high school students could become leaders of elementary and middle school programs, and have the opportunity to design their own after-school adventures and even weekend camp-outs. The Middlebury College Mountain Club could take part in spearheading and running aspects of the program, as the mountain club guides have the necessary training for running College outdoor trips, and this effort would serve as a connection between the College and the community. The program could also seek to connect with Middlebury College’s Alliance for Civic Engagement and Teacher Education Program, the Addison County Teen Center, local church youth groups, Camp Keewaydin and other children and young adult groups within the surrounding area.

Necessary logistics that need to be considered in the creation of the Outdoor Education and Appreciation After School Program would be providing transportation

from regional schools to the MNRA and back. One possibility is for the program to connect and coordinate with Addison County Transit Resources (ACTR), which provides public bus service in Addison County. Also, although activities would focus on non-equipment intensive adventures, partnerships with local retailers and providers would be beneficial and necessary to providing equipment to those students who do not have access to equipment or the financial means to rent it.

Work-Party Weekends

Having Work-Party Weekends once a month would greatly promote, generate, and cultivate land stewardship within the MNRA. The general idea would be to have organized gatherings of community members one Saturday every month to do needed service projects within the area. This would increase community ties to the land and increase general knowledge of the land. A morning of service work would conclude with a potluck of delectable food and drink, a celebration of the morning's work and the coming together of community members. Good food and good drink will foster a sense of community and serve as a resource to come up with new service projects within the area. Work-Party Weekends will ideally further locals' connections to the land and to each other.

Currently, Tony Clark of the Blueberry Hill Inn conducts "Work-Party Weekends" in the fall and spring. Their model is based around the mentality of "provide food and they will come." For the designated weekend, Tony offers free food and lodging to volunteers willing to work on projects that Blueberry Hill Inn needs to accomplish before the next season, such as moving firewood and cleaning sheds.

Maple Sugaring

Maple sugaring is a skill that has long been practiced in New England, and has come to be a major cultural symbol of Vermont. Sugaring is inherently connected to the Green Mountains, which provide prime habitat for sugar maples that produce high quality sap for syrup. To practice sugaring is to be connected to both the history and landscape of Vermont. The Moosalamoo National Recreation Area offers an ideal landscape for sugaring, where an educational group could teach this historic skill and showcase it to visitors.

Generally, sugaring operations occur between 1200 and 2000 feet of elevation. As can be seen in Map 2, this involves a good portion of the MNRA. A proper sugaring operation would have to be in a particularly dense maple stand, and must have a gentle slope to build a sugaring shack on (Elder 2008). The site suggested by a local resident and noted on the map is one of several potential sugaring sites that would succeed in the MNRA. Such an operation could work well with stewardship contracting. Bidders could help build a sugaring shack as part of their service to the region. A sugaring operation is also an opportunity for community involvement, and acknowledges the potent cultural and historical importance of the practice, encouraging local pride and investment in the MNRA. This would also be an educational opportunity, in which school groups could come up to the sugaring site in early spring to learn about sugaring.

Moosalamoo Wood Products

In addition to having a Moosalamoo Maple Syrup, there could also be Moosalamoo Wood Products. Toys and furniture could be made from wood that is sustainably harvested within the MNRA by local loggers and then handcrafted by local artisans. The profits of Moosalamoo Wood Products could be re-invested in stewardship projects within the area. The “Moosalamoo” brand would evoke connection to the local area, and promote education on the importance land stewardship and service. Products would appeal to residents because of the sense of local pride and reinvesting in their community, and they would appeal to visitors because of their high-quality and unique value.

Firewood

As the price of heating fuels rise, more and more Vermont families will find it difficult to heat their homes sufficiently during the winter months. To serve the best interest of the local community, the Moosalamoo steering committee could play a role in the creation of a community firewood program aimed at ensuring that underprivileged members of the communities in the Moosalamoo region have the necessary resources to heat their homes during cold Vermont winters. Ideally, such a project would entail a high level of volunteerism and community involvement.

As a model for possible firewood projects in the Moosalamoo region, we looked to a recent example of one such initiative spearheaded by Maine Central Institute (MCI), an independent secondary school in Pittsfield, Maine. For MCI, 2008 marked the beginning of a volunteer project to collect firewood which would be provided at little or

no cost to those members of the community needing assistance heating their homes. Student and community volunteers cut, collected, and donated firewood to create a wood bank at the school. The wood was then given away on an honor system, which asked people who took firewood to pay as much as they were able, but allowed those who were unable to pay to take firewood free of charge. MCI then donated money collected from the firewood to aid those in need of additional assistance with heating expenses. A local group which does similar work is the Ripton Energy Assistance Program. This group harvests firewood with ecologically-sound methods, and distributes it to local homes. REAP is looking for another organization to provide labor for firewood harvesting (Bates et al. 2008). A stewardship contract service harvesting firewood in the Moosalamoo Region and giving it to the Ripton community is one way that REAP and the MNRA could interact. Map 3 shows the type of timber contracts that happen in the MNRA, from which wood for firewood and wood products could be parceled under stewardship contracts.

In the Moosalamoo region, such a project could be tied in with a community work weekend in the early fall, organized by the Moosalamoo steering committee. Additionally, as with the MCI example, it could provide an opportunity to involve high school students in the betterment of their communities. A central pickup location for precut wood would be determined by the steering committee, with the possibility of volunteer delivery to the elderly.

Adopt-a-Trail Program

Hiking is one of the major activities that visitors to—and community members of—the Moosalamoo National Recreation Area engage in. However, due to the demands of other projects, trail maintenance on the extensive hiking trails can get overlooked at times. This is particularly true because of the high demand of physical labor necessary for the job. Map 4 shows potential trail projects that an Adopt-a-Trail program could include.

An Adopt-a-Trail program would allow families or community groups to sign up and be responsible for the maintenance of a particular trail or section of trail. This would result in better trails the whole community could enjoy, as well as greater community accountability because community members would feel responsible for the way the recreation area and its trails look. This would also result in stronger sense of connectedness to the land, since community members would be able to see their physical contribution to the recreation area.

There are numerous adopt-a-trail programs in existence throughout the United States, however, it has been particularly successful within state park systems and state departments of conservation. In Missouri, the Department of Conservation (MDC) requires a one year contract for maintenance volunteers, and officials do routine inspections to make sure work is above a minimum work standard (MDC 2008). They ask that volunteers do work at least 4 times per year (once per season), and file written reports after each visit so the MDC can keep records of the work.

This MNRA adopt-a-trail program would be less demanding in the short term, however it would extend over a longer period of time. The duration of a group's

responsibly to a trail would vary, but at its shortest, could be one year with maintenance work performed at least once per month. Maintenance would be expected to be basic upkeep and trimming of growth at edges of trails. More significant maintenance would still be performed by skilled professionals.

Information Center

The Moosalamoo National Recreation Area is a fully functional forest area with multi-use trails, camping, and hunting, among other activities. However, visitors to the area often have to find out information about these on their own or from local businesses because there is no centralized location where this information can be obtained. A centralized information center would be a beneficial addition to the MNRA. Map 4 shows one potential site for such an information center.

As a place where tourists can obtain information on the wealth of activities available to them in the MNRA, an information center could provide visitors with more orientation to the area. Although there are many recreation opportunities mentioned on the Moosalamoo website (www.moosalamoo.org), details of these opportunities such as directions to specific locations and a detailed map of the region are currently unavailable. Within an information center, visitors could collect this information or maps to areas that are minimally visited, such as locations without posted placards advertising their existence. This would allow visitors to get the most out of their experience in the region.

Additionally, residents of the area could also specifically benefit from an information center. They too may be unfamiliar with the MNRA and all it has to offer. Further, the information center could also serve as an educational resource and a

reference to local community members who are unfamiliar with the process and specificities of the hunting and firewood permits issued by the US Forest Service.

This project would involve constructing or remodeling a building within the Moosalamoo National Recreation Area. This could possibly be at the Blueberry Hill Inn or at the US Forest Service campground, both of which are located in Moosalamoo on Forest Road 32. Alternatively, there could be smaller centers located on the larger roads bordering the recreation area, such as on Route 125 on the north boundary, Route 53 on the west, or Route 73 on the south. Having one central information center with smaller satellite centers would be the most useful for the region, since there are many, well-used points of entry into the area.

Since visitation to the area is seasonal, a seasonal schedule for volunteer staffing of the information centers is logical. Hours could be more extensive during the summer and fall when the area is busiest, with fewer staffed hours during the winter and spring. This could be similarly modeled after the Green Mountain Club's Summit and Shelter Volunteer Program in which volunteers can sign up anywhere from a week until the entire season (it would be more appropriate for MNRA opportunities to even offer half-day volunteer opportunities). The volunteers of the Green Mountain Club's Summit and Shelter Volunteer Program are given food, tents, and stoves for the time of their work.

Conclusion

The Moosalamoo National Recreation Area is a unique area that holds enormous opportunity for community involvement, use, and education. As we have outlined, the possible projects within the area are substantial, but in order to be carried out, there is a strong need for community leadership. We feel that once any project is initiated, community involvement and interest will increase, as the benefits are realized.

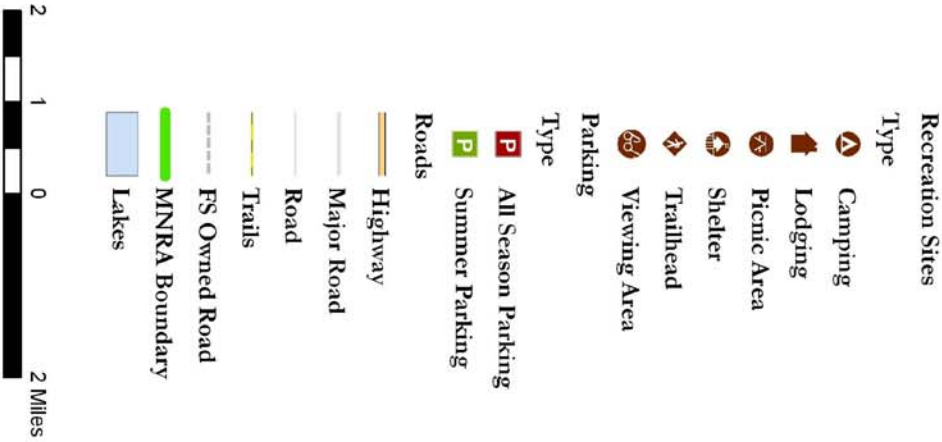
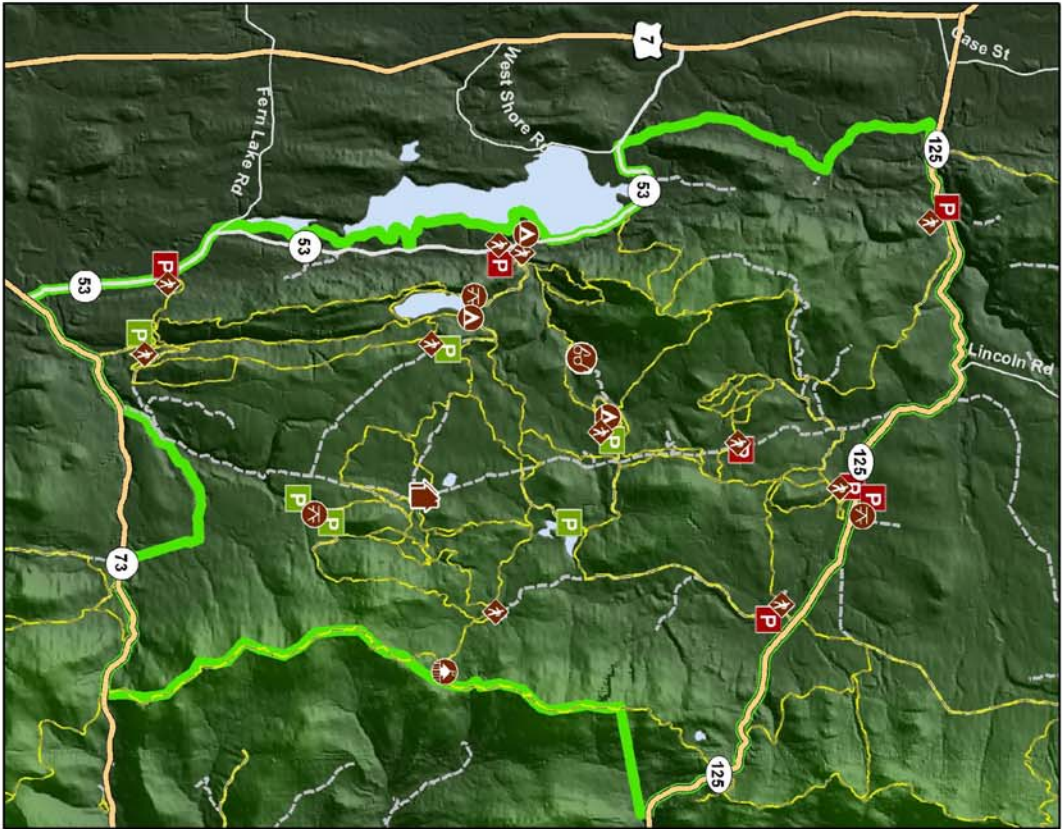
Our nation and our world are facing pressing environmental challenges, as issues such as resource depletion and global warming are increasingly becoming realized in the now desperate state of a down-spiraling economy. In this present situation, the land stewardship model presented in this report holds enormous potential. Re-establishing community connection both between people within the community and between community members and the land creates a sense of responsibility and pride that leads to more sustainable land use and practice, not to mention a happier, more fulfilled population.

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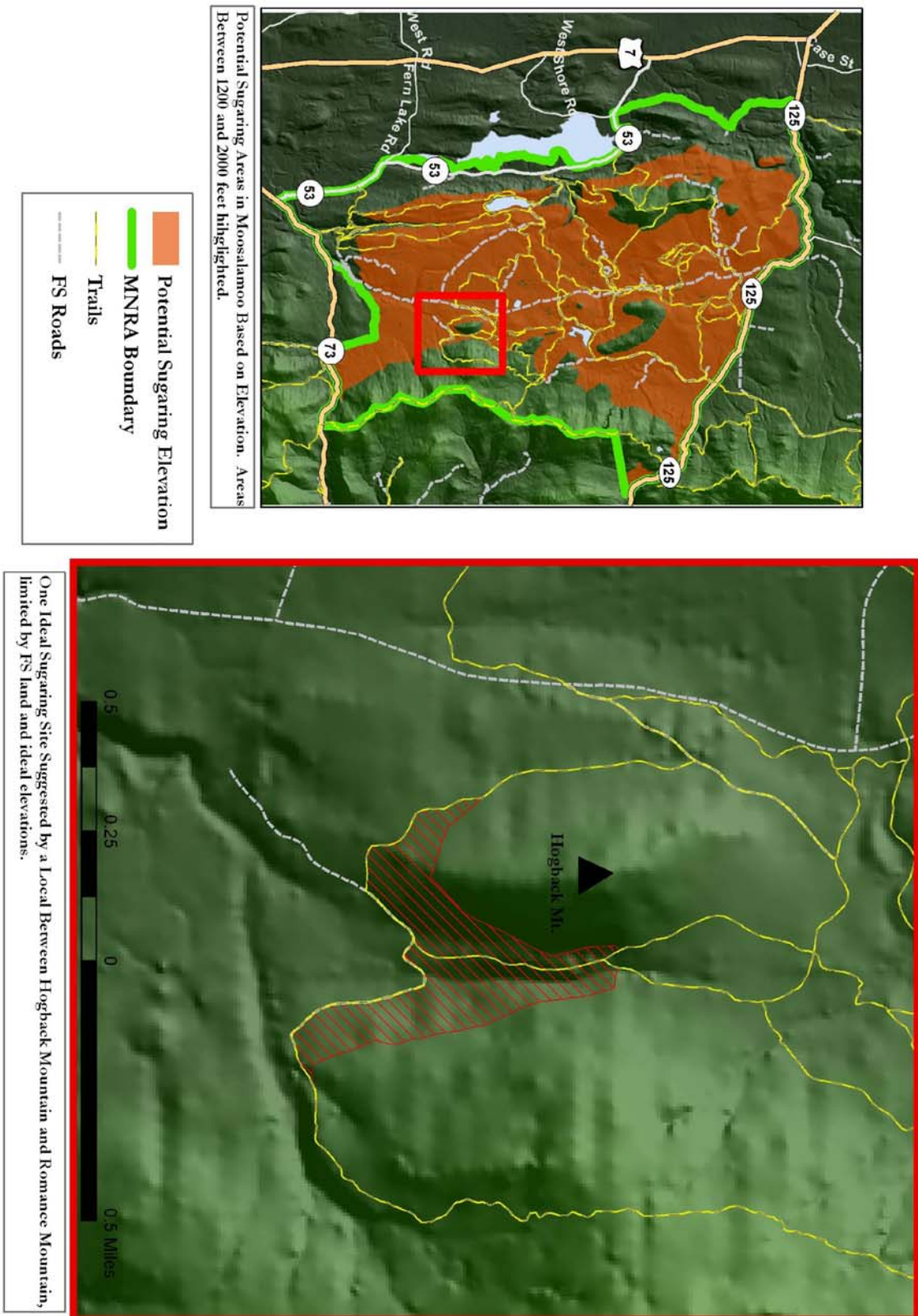
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Recreation Areas and Amenities in Moosalamoo National Recreation Area

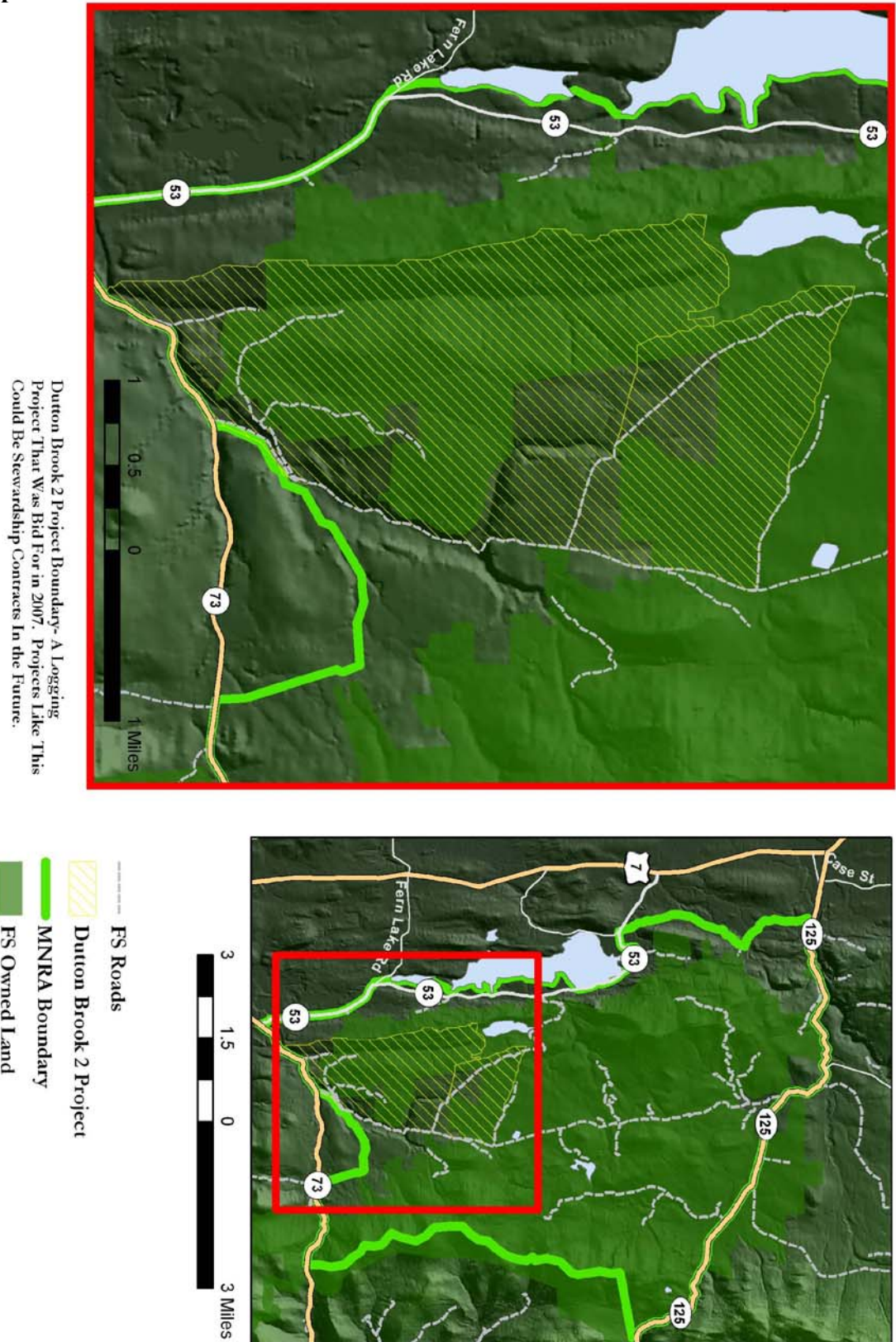


Map 1:

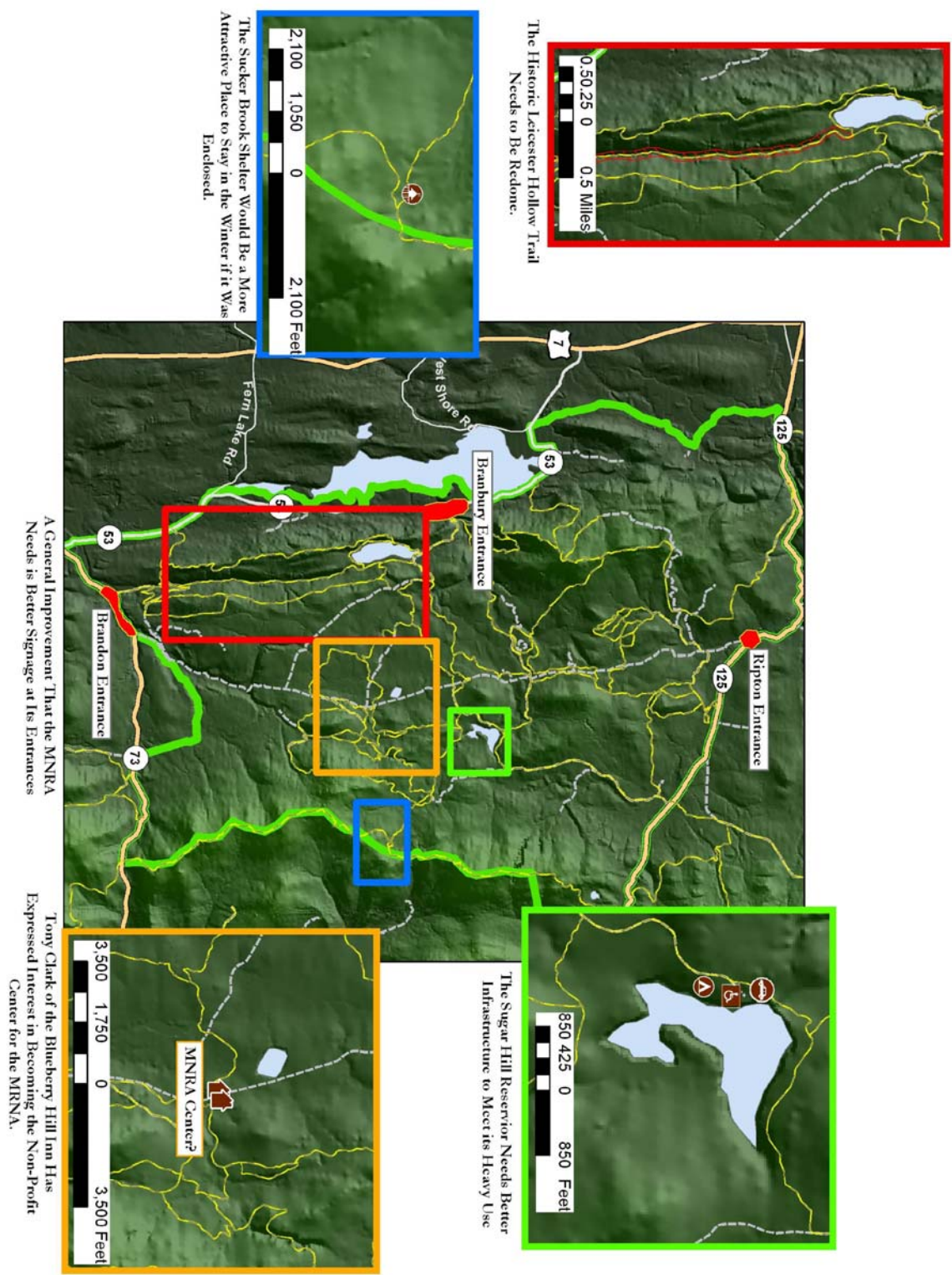
Map 2:



Map 3:



Map 4:



Appendix A: Surveys Following Stewardship Contracting Workshop

Stewardship Contracting Workshop Follow Up Survey

Questions? Contact James at jtresner@middlebury.edu or 860-424-6091

Thank you for your willingness to talk with us about your experience at the workshop on 10/21 and your impressions of stewardship contracting. We are conducting this survey as a part of our course on Land Stewardship at Middlebury College. We are hopeful that the information we collect in this survey will help the Green Mountain National Forest move forward in developing stewardship contracts in the area. This survey should take roughly 15-20 minutes, and thank you for your time!

Name:

Phone:

How would you describe your business? Do you have employees or are you an individual logger? What are your specialties?

Have you done service work before? Was it through the US Forest Service or Private Contractors? How was your experience?

Have you bid on a stewardship contract in the past? How was that experience?

Did you find the Introduction to Stewardship Contracting Workshop on 10/21 informative? Useful? Why or why not?

What ideas do you have for the service part of a stewardship contract that you think would benefit your community and Vermont?

Do you have any ideas that can make stewardship contracting more appealing to those working in your industry?

Do you feel that stewardship contracting could work for your business? Why or why not?

What do you see as the greatest strengths and weaknesses of stewardship contracting? Do you think it is practical?

Do you have any other broad comments about the workshop or stewardship contracting in general?

Responses: (phone interviews)

Respondent #1

How would you describe your business? Non-profit, 501c3, conservation organization

Do you have employees or are you an individual logger? Not Applicable

What are your specialties? Wildlife biology and management

Have you done service work before? Not through Stewardship Contracting

Was it through the US Forest Service or Private Contractors? Not Applicable

How was your experience? Not Applicable

Have you bid on a stewardship contract in the past? Our national organization has for contracts on other USFS lands across the country but I have not been a part of those bids.

How was that experience? N/A

Did you find the Introduction to Stewardship Contracting Workshop on 10/21 informative? Yes

Useful? Yes

Why or why not? It provided me an opportunity to meet with loggers during the breaks and lunch to share contact information. The information provided during the presentations provided the details on why the stewardship process is set up the way it is and why the process works the way it does.

What ideas do you have for the service part of a stewardship contract that you think would benefit your community and Vermont?

Service work that address habitat needs for species of greatest conservation need, as identified in the VT Fish & Game Wildlife Action Plan will benefit the natural resources of the state and local communities.

Do you have any ideas that can make stewardship contracting more appealing to those working in your industry? Not really. I think it takes some time to learn the Stewardship Contracting process but after that time investment to learn about the program it is user friendly. Continued use of workshops to inform communities and contractors about the process may help stewardship contracting become more appealing.

Do you feel that stewardship contracting could work for your business? Yes

Why or why not? Because we are concerned with wildlife habitat improvement and active forest management and stewardship contracting can be used to address those issues.

What do you see as the greatest strengths and weaknesses of stewardship contracting? I think the strengths are the need for community involvement and the fact that the receipts from the timber sales stay on the forest for service work to improve the soil, and wildlife and fish habitats. I'm not sure of the weaknesses yet, other than the time it takes to learn the process.

Do you think it is practical? Yes

Do you have any other broad comments about the workshop or stewardship contracting in general?

I thought the US Forest Service staff did a very good job and the host facility was great.

Respondent #2 - a 7th generation logger

How would you describe your business? Do you have employees or are you an individual logger? What are your specialties?

Works alone, for minimum impact

Has help in the past, the mulcher is there to make him more independent

Low impact logging, low scale. Mulcher, Chipper, mulch tops of trees. TSI work (improvement), firewood, field reclamation. Individual tree removal.

Recently, mostly clearing house lots, driveways

A big recycler of ground result-aesthetic is huge, leaving a usable fields

Doesn't compete on large scale, 25 30 acre selective cut is the best job for him, and he'll do a better job than big loggers.

Working into biomass preservation movement- on the moving edge of logging industry

Have you done service work before? Was it through the US Forest Service or Private Contractors? How was your experience?

No work w/ US Forest Service before-contacted by state to go to meeting

Tends to help folks who got were unhappy with other contract work - often gives extra work for these people.

With greater competition, more established foresters society, these things CANNOT fly.

Have you bid on a stewardship contract in the past? How was that experience?

N/R

Did you find the Introduction to Stewardship Contracting Workshop on 10/21 informative? Useful? Why or why not?

Found it informative, but people were bashing the FS too much. Got to petty to get anything done, or learn anything- the presentation was limited by the amount of flack the FS took. A good diversity of people-all officials present, which was a good forum. Well run for a government organization.

What ideas do you have for the service part of a stewardship contract that you think would benefit your community and Vermont?

The Product SHOULD pay for the work. This is a great idea. Let the product pay for the work! Create the revenue, keep it with the FS. It creates service jobs for guys like me, its encouraging diversification.

Do you have any ideas that can make stewardship contracting more appealing to those working in your industry?

No way to make it more appealing, people are too stubborn. They need to jump on board, or not. Adapt or die. Keep working, not complaining. The Vermont Way is to go out and do it. Diversification is the key.

Do you feel that stewardship contracting could work for your business? Why or why not?

Mostly maintenance- releasing apple orchards, cleaning up major timber sites from big contracts, a big part of business season is all summer- this could work for him. HE DIVERSIFIES- TO MAKE A LIVING, YOU NEED TO DIVERSIFY
Find a niche.

What do you see as the greatest strengths and weaknesses of stewardship contracting? Do you think it is practical?

This is the next big thing! If this gets, rolling, it's self-perpetuating. This is THE FUTURE. It's the only option!

Do you have any other broad comments about the workshop or stewardship contracting in general?

Big mills don't get it, don't care about the forest, only concerned with numbers. It's the little loggers that really are thinking of the forests self-preservation. There were 6 folks that were bringing down most of the meeting, mostly just talking more than anyone else.

Respondent #3

How would you describe your business? Do you have employees or are you an individual logger? What are your specialties?

Forestry and Logging contractor- cut timber and forestry, just the two of them
Mostly logging, Forestry plans on the side, site prep (for FS- after logging, tweak the condition of the stand to desirability—cleaning and health)

Have you done service work before? Was it through the US Forest Service or Private Contractors? How was your experience?

Involved in Bristol affairs—w/ town forest, active community member
FFA through Midd vocational center, both sons through scouts

Have you bid on a stewardship contract in the past? How was that experience?
NO

Did you find the Introduction to Stewardship Contracting Workshop on 10/21 informative? Useful? Why or why not?

This is the second he's been to. A refresher. Run well, often would criticize the gaps.
Other than Johnson, the only Stewardship 'vet'

What ideas do you have for the service part of a stewardship contract that you think would benefit your community and Vermont?

Bristol- By creating a steady supply of lumber/forestry products of all types to the town. It's so sporadic, it's really hurting the timber mill. Bristol has already lost a major mill, Tim's mill has gone out of business, one in Lincoln.... It's been a struggle for 6 years, and it would be a narrow and vulnerable economy to lose a variety of forestry businesses. FS needs to help forestry businesses to stay in business. Need MORE CONTINUOUS LOGGING OPPORTUNITIES. Mills can't stockpile a years' worth of material from one winter.

Do you have any ideas that can make stewardship contracting more appealing to those working in your industry?

TOPICS criticized:

- The need for the FS to treat everybody fairly- the S Contract could require a bid deposit, which severely limits a company's ability to break into contracts—terrible for new companies, favors legacies.
- Smoother, more efficient process of providing sails, ESPECIALLY DURING THE SUMMER- loggers NEED this to take them through the summer.
- FS needs to help forestry businesses to stay in business. Need MORE CONTINUOUS LOGGING OPPORTUNITIES. Mills can't stockpile a years' worth of material from one winter

Do you feel that stewardship contracting could work for your business? Why or why not?

With such a history with the FS, these kinds of contracts would definitely help Tim and Tyler. They know the processes...
Bids are SO HIGH in normal contracts, it's just TOO much for small loggers to handle.

*What do you see as the greatest strengths and weaknesses of stewardship contracting?
Do you think it is practical?*

N/R

Do you have any other broad comments about the workshop or stewardship contracting in general?

Tim's hoping that it helps put more timber on the market. The FS is trying to incorporate the groups like Forest Watch into timber scales to avoid court battles with every sale. Even if the stewardship contracts don't work as well as he'd like, at least their talking. If they can reach a middle-ground, just to survive.